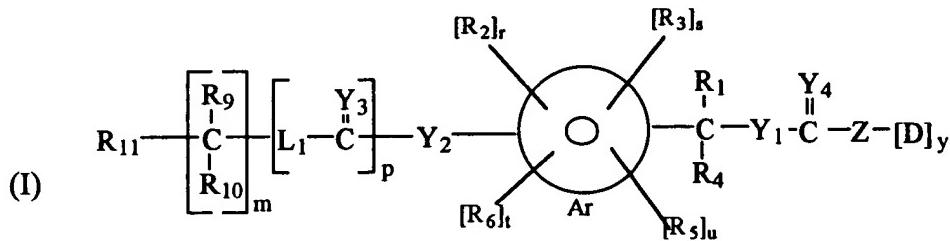


ABSTRACT

A compound of Formula I, providing tetrapartate prodrugs is provided



wherein:

L₁ is a bifunctional linking moiety;

D is a moiety that is a leaving group, or a residue of a compound to be delivered into a cell;

Z is covalently linked to [D]_y, wherein Z is selected from the group consisting of: a moiety that is actively transported into a target cell, a hydrophobic moiety, and combinations thereof;

Y₁, Y₂, Y₃ and Y₄ are each independently O, S, or NR₁₂;

R₁₁ is a mono- or divalent polymer residue;

R₁, R₄, R₉, R₁₀ and R₁₂ are independently selected from the group consisting of hydrogen, C₁₋₆ alkyls, C₃₋₁₂ branched alkyls, C₃₋₈ cycloalkyls, C₁₋₆ substituted alkyls, C₃₋₈ substituted cycloalkyls, aryls, substituted aryls, aralkyls, C₁₋₆ heteroalkyls and substituted C₁₋₆ heteroalkyls;

R₂, R₃, R₅ and R₆ are independently selected from the group consisting of hydrogen, C₁₋₆ alkyls, C₁₋₆ alkoxy, phenoxy, C₁₋₈ heteroalkyls, C₁₋₈ heteroalkoxy, substituted C₁₋₆ alkyls, C₃₋₈ cycloalkyls, C₃₋₈ substituted cycloalkyls, aryls, substituted aryls, aralkyls, halo-, nitro- and cyano-, carboxy-, C₁₋₆ carboxyalkyls and C₁₋₆ alkylcarbonyls;

Ar is a moiety which when included in Formula (I) forms a multi-substituted aromatic hydrocarbon or a multi-substituted heterocyclic group;

(m), (r), (s), (t), and (u) are independently zero or one;

(p) is zero or a positive integer; and (y) is 1 or 2;

together with methods of preparing and using these new tetrapartate prodrugs.